Fall 2025 Vol. 32, Iss.3

Society of Physician Assistants in Otorhinolaryngology-Head & Neck Surgery

THE VANGUARD

President's Message

By Reagan Davis, MPAS, PA-C

Dear Colleagues,

As the fall season settles in, I hope this message finds you well and enjoying the cooler days ahead. This is always a season of change and renewal — much like the exciting initiatives currently underway within our organization.

The CME Committee has been hard at work planning for the 2026 ENT for the PA-C Conference, and I am thrilled to share that this meeting promises to deliver another outstanding experience. Attendees can look forward to superb hands-on workshop skills training, high-quality clinical lectures from experts in the field, and engaging social opportunities designed to foster meaningful networking and collaboration.

Conference registration will open this fall, so please look for future correspondence once it goes live. We hope you will pack your tropical shirts and join us for some fun on Galveston Island, Texas, in March 2026!

In addition, our recently formed Education Committee has begun mapping out the early stages of a structured onboarding curriculum for APPs new to the ENT specialty. This initiative aims to equip new colleagues with the clinical knowledge and procedural skills they need to succeed and thrive in their ENT careers.

This fall season also brings an important time of recognition. As we celebrate APP Week, PA Week and NP Week, I extend my heartfelt gratitude to each of you. Your contributions to our specialty, the patients you care for, and the professional leadership you bring to the broader medical community are inspiring and truly worthy of celebration.

Thank you for your dedication and engagement. Wishing you a wonderful fall season ahead.

Warm regards,
Reagan Davis, MPAS, PA-C
President, SPAO-HNS

IN THIS ISSUE

Join SPAO and receive *The Vanguard* quarterly newsletter!
entpa.org/member_application/

THE VANGUARD

8100 Three Chopt Road,
Richmond, VA 23229

Laryngeal Papillomatosis: A Clinical Review

By Monika Kamdar, PA-C, MPH Newsletter Committee Chair

Laryngeal papillomatosis (LP), also called recurrent respiratory papillomatosis, are benign lesions caused by human papilloma virus (HPV) that can infect cutaneous and mucosal epithelial cells, resulting in proliferation.

Benign growths, including skin warts and genital warts, can form as well as transformation to HPV-related oropharyngeal, cervical and anogenital cancers.

There are over 150 types of HPV. HPV 6 and 11 are most often associated with laryngeal papillomatosis, but 16 and 18 can also be involved. LP has a bimodal distribution, affecting juvenile patients with onset of disease before 5 years of age and adult patients between ages 20-40 years2.

Juvenile onset papillomatosis tends to be more aggressive disease than in adults. "Transmission of HPV in children has been suggested to occur via three mechanisms: vertical transmission between a mother and newborn at birth via contact with the genital mucosa, vertical transmission in utero, and horizontal transmission via the child's environment1."

There is an overall high prevalence of recurrence of disease. "Laryngeal papillomas are characterized by multiple proliferations of hyperplastic stratified squamous epithelium with a central fibrovascular core."4

Clinical presentation can vary depending on location and extent of disease from asymptomatic to dysphonia, stridor, dyspnea. Juvenile onset papilloma more often can result in airway obstruction given the propensity of being more aggressive.

Laryngeal papilloma can transform into squamous cell carcinoma in up to 1% to 4% of the cases4. It is important to perform biopsies every few years to confirm progression to cancer has not taken place.

Narrow band imaging (Figure 3) is a helpful tool when available to better visualize papilloma as it enhances the visibility of blood vessels, mucosa by filtering out most wavelengths of light and allows a narrow band of blue and green light to pass through, which is strongly absorbed by hemoglobin.

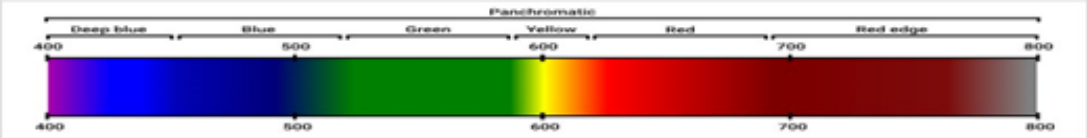


Figure 1

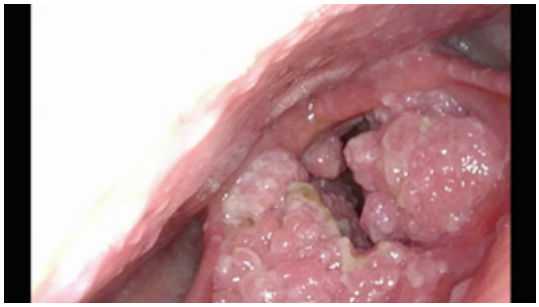


Figure 2

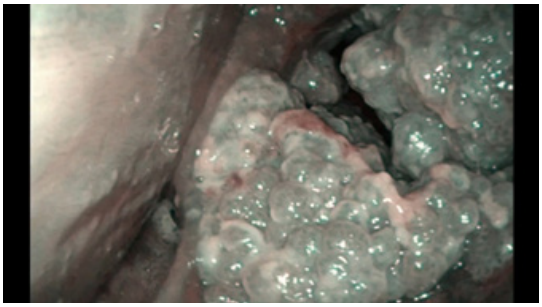


Figure 3

Gardasil-9 is a 9 valent, recombinant vaccine HPV 16, 18,31,33,45,52,58,6,11 and as of 2018, was approved for ages 9-45. There is a high efficacy, approximately 80-90+%, depending on the age of the person and type of cancer. There has been shown to be a decrease of number of surgeries in patients with laryngeal papillomatosis who were vaccinated with HPV vaccine.

Management of laryngeal papilloma can involve ablation of disease with KTP laser and blue laser, which are photoangiolytic lasers that are absorbed preferentially by oxyhemoglobin. These lasers provide more selective ablation of highly vascularized tissues. CO2 laser and microdebriders can also be utilized.

When there is recalcitrant disease, laryngeal papilloma can be treated with Cidofovir or Avastin. Cidofovir is an antiviral that inhibits viral replication and can be given as an intralesional serial injection. However, there is risk of causing vocal fold scarring.

Avastin (bevacivumab) is a monoclonal antibody that targets a protein called vascular endothelial growth factor (VEGF) and blocks VEGF, which prevents the formation of new blood vessels. This medication has been used for multiple cancers, including NSCLC, as well as off label use for HHT and laryngeal papillomatosis.

Laryngeal papillomatosis can be managed with office procedures performed under local anesthetic, including laser, serial intralesional injections when there is lower disease burden.

Adjunctive therapies have included AHCC (active hexose correlated compound) found in certain types of mushrooms have been found to support the immune system and may help clear recurrent HPV infection. However, safety in young children, pregnancy, and severe liver or kidney disease is not clear. There has also been discussion about the benefits of Indole 3 carbinol found in cruciferous vegetables, which may reduce recurrence of disease.

Future trends for laryngeal papillomatosis: Inovio INO-3107 is an investigational DNA medicine designed to elicit an antigen-specific T cell response against both HPV-6 and HPV-11 proteins.

Precigen Papzimeos is a novel non-replicating adenoviral vector-based immunotherapy, is administered subcutaneous injection, a therapeutic vaccine and given as four doses over three months. Full FDA approval was obtained this August.

References

1 Levinson, J., & Karle, W. E. (2025). Laryngeal Papillomatosis. Cancers, 17(6), 929. https://doi.org/10.3390/cancers17060929

2 Ribeiro El-Achkar VN, Duarte A, Pinto Saggioro F, De Mello Filho FV, León JE, Ribeiro-Silva A, Kaminagakura E. Squamous Cell Carcinoma Originating from Adult Laryngeal Papillomatosis: Case Report and Review of the Literature. Case Rep Otolaryngol. 2018 Dec 19;2018:4362162. doi: 10.1155/2018/4362162. PMID: 30662782; PMCID: PMC6313995.

3 Richardson M., Gale N., Hille J., Zidar N. WHO Classification Head and Neck Tumours. Lyon, France: IARC Press; 2017

4 Rivera GA, Morell F. Laryngeal Papillomas. [Updated 2023 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK562327/

https://docs.up42.com/data/reference/spectral-bands Figure 1

Transformational Breathwork: Beyond Relaxation

By Kelsey Rudzinsky, RN, BSN, CBF, Guest Contributor

Due to the immense amounts of stress of modern life, many people are learning simple breathing techniques to calm themselves in the moment — and the benefits are well supported.

For example, slow, diaphragmatic breathing has been shown to reduce cortisol levels, activate the parasympathetic nervous system, and lower both heart rate and blood pressure3. Go ahead and give this a try right now, take a deep breath in through your nose, using your diaphragm to fill your lungs to capacity, pause for a moment, exhale completely and repeat that three times. Instant relaxation.

If there's one fast, free and accessible way to reduce stress and relax the body, it's by changing the way you breathe. Below are some breathing techniques to start implementing today.

The Perfect Breath: Inhale in through your nose for 5.5 seconds, exhale out your nose for 5.5 seconds. This is how everyone should be breathing at rest. This manner of breathing promotes coherence in the heart, lungs, and circulation, allowing the body to work efficiently.

ProlEx Breathing: Inhale in through the nose for 4 seconds, exhale out for 6 or 8 seconds. ProlEx= Prolonged Exhale. Prolonging the exhale has been shown to activate the parasympathetic system quickly. This breathing technique can be implemented during times of increased or acute stress.

Box Breathing: Inhale through the nose for 4 seconds, hold for 4 seconds, exhale out the nose for 4 seconds and hold for 4 seconds. This technique stimulates the vagus nerve, which activates the parasympathetic nervous system.

4-7-8 Breathing: Inhale through the nose for 4 seconds, hold at the top for 7 seconds and exhale out the mouth through pursed lips for 8 seconds. Repeat x4. This method was popularized by Dr. Andrew Weil, and he believes it is the best technique for anxiety relief. This technique's benefits accumulate over time and should be practiced at least 2x/day for maximum effect.

Physiological sigh: Take deep inhalation through nose, sip in a little bit more through nose, then audibly exhale through the mouth. Immediate stress reduction.

Many of these breathing exercises are thought to stimulate the vagus nerve, which activates the parasympathetic nervous system. Resulting in possible health benefits, including reducing anxiety, reducing heart rate, reducing cortisol levels and sharpening focus.

"Slow-paced breathing may help reduce stress. Fast-paced breathwork may also offer therapeutic benefit as temporary voluntarily induced stress is known to be beneficial for health and stress resilience. For example, regular physical exercise can improve stress, anxiety and depression levels, along with HRV. Similarly, fast-paced breathing techniques can induce short-term stress that may improve mental health and have also been shown to volitionally influence the autonomic nervous system."1

Continued on next page...

This is where transformational breathwork comes in. This style doesn't have to be "fast paced," but is faster than breathing at rest. Unlike relaxing techniques, transformational breathwork helps move you out of your head and into your body. This ancient breathing practice turns on the body's self-healing mechanisms. It allows people to feel sensations many have never felt without an external substance.

On a physiological level, changes in oxygen and carbon dioxide during active breathing practices can alter brain activity and autonomic function. Research suggests that specific breathwork techniques stimulate the hypothalamic–pituitary–adrenal (HPA) axis, leading to shifts in stress hormone regulation and the release of endorphins4. These neurochemical changes help explain why participants often report profound physical and emotional release.

What you experience is completely unique to you. Your breath meets you where you're at. The key element in exploring breathwork as a healing modality? Safety.

Transformational breathing is where safety becomes essential — both within your own body and in space, you're breathing with a trained facilitator. Transformational breathwork can be challenging; there's a reason it's called breath-work. If you can stay with the breathing pattern for the first 5–7 minutes, long enough for the busy, analytical mind to let go, the effects can be profound.

The benefits of breathwork expand far beyond emotional release (though, let's be honest — long-held emotion causing tension and dis-ease in the body is a massive problem). The issues are in the tissues. Flushing your body with oxygen has been shown to improve sleep, respiratory function, focus and cognitive performance, cardiovascular health, temporarily boost immune function, reduce cellular stress, relieve symptoms of anxiety and depression, and decrease inflammation.

There are no shortcuts when it comes to true healing. This process is difficult to fully understand until it is experienced. That's why I invite you to try a full breathwork session.

Even short, daily practices — as little as 90 seconds to five minutes — have been associated with measurable improvements in stress, attention, and cardiovascular function2. Below you will find a short breathing practice to give you an immediate boost.

Looking for more? Check out www.breathewithkelsey.com and experience the power of your breath.

References
1. Fincham, G.W., Strauss, C., Montero-Marin, J. et al. Effect of breathwork on stress and mental health: A meta-analysis of randomized-controlled trials. Sci Rep 13, 432 (2023). https://doi.org/10.1038/s41598-022-27247-y

Continued on next page...

2. Perciavalle V, Blandini M, Fecarotta P, Buscemi A, Di Corrado D, Bertolo L, Fichera F, Coco M. The role of deep breathing on stress. Neurol Sci. 2017 Mar;38(3):451-458. doi: 10.1007/s10072-016-2790-8. Epub 2016 Dec 19. PMID: 27995346.

3. Russo MA, Santarelli DM, O'Rourke D. The physiological effects of slow breathing in the healthy human. Breathe (Sheff). 2017 Dec;13(4):298-309. doi: 10.1183/20734735.009817. PMID: 29209423; PMCID: PMC5709795.

4. Zaccaro, A., Piarulli, A., Laurino, M., Garbella, E., Menicucci, D., Neri, B., & Gemignani, A. (2018). How breath-control can change your life: A systematic review on psycho-physiological correlates of slow breathing. Frontiers in Human Neuroscience, 12.

Beyond Nasal Polyps: Imaging and Clinical Clues to Inverted Papilloma

By Jennifer Bendokas, DMSc, MPAS, PA-C, Scholarship Committee Chair

Case Presentation

A 79-year-old male presented to the clinic reporting several years of sinusitis symptoms, including nasal obstruction, nasal drainage, facial pressure and recurrent sinus infections. He does have a known history of allergy to aspirin. He denied anosmia, history of nasal polyps, asthma and prior sinus surgery, and has not undergone allergy testing.

He was prescribed prednisone 20mg for five days, which resulted in minimal improvement. Prior treatments included amoxicillin, sulfamethoxazole/trimethoprim, daily fluticasone nasal spray, and daily antihistamine, all without symptomatic relief. Chronic medical history included hypertension, which is well controlled with lisinopril. He is a former smoker with a five-pack-year smoking history.

Social history includes working as a military contractor who has spent some time overseas in areas where burn pits were present. All physical exam findings were normal except for bilateral turbinate hypertrophy on anterior rhinoscopy. Nasal endoscopy revealed a leftward deviated nasal septum, bilateral turbinate hypertrophy, and polyps noted in the left nasal passage (Image 1).

No purulent discharge was present on endoscopy. The plan was to proceed with a CT scan of the sinuses. He was advised to begin mometasone saline irrigations once daily until his follow-up appointment.

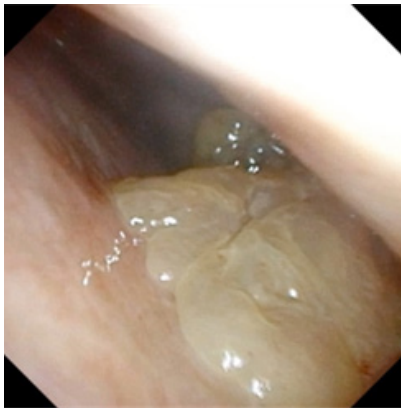


Image 1. Left Nasal Passage

Image 2. Sinus CT scan

He returned to the clinic to discuss his sinus CT findings, which showed left osteomeatal unit soft tissue obstruction and left maxillary sinus opacification, likely due to polyposis, with possible infection. Bony changes were seen in the left maxillary sinus (Image 2). The left anterior ethmoid sinus had mucoperiosteal thickening. The other sinuses showed limited to no mucoperiosteal thickening. Stenosis of the bilateral frontal and sphenoid recesses and outflow tracts were present.

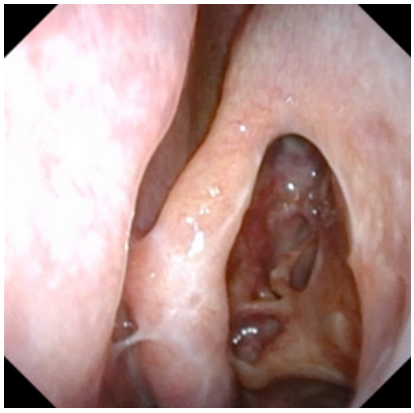
His symptoms did not improve with daily mometasone irrigations. Nasal endoscopy showed the persistence of nasal polyps in the left nasal passage. The decision was made to proceed with a biopsy of the nasal polyp tissue since it did not respond to

Continued on next page...

standard polyp treatment. The final pathological diagnosis of the left intranasal biopsy finalized as inverted papilloma.

The patient underwent a left modified maxillectomy with an additional premaxillary approach with adjacent tissue transfer, tumor removal with clear margins, complete left ethmoidectomy, and left frontal sinusotomy (Images 3 and 4). Frameless stereotactic computer-assisted surgical navigation was used to identify landmarks and ensure safety.

Follow-up included initial postoperative debridement, followed by three-month surveillance with nasal endoscopy for the first two years. No tumor recurrence was observed during the initial two-year surveillance period. He continues to return to the clinic every six months for nasal endoscopic evaluation.



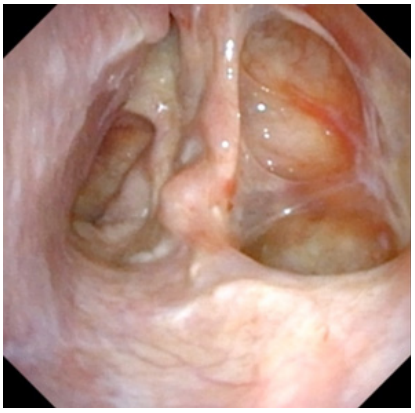


Image 3. Left Ethmoidectomy Image 4. Left Maxillectomy

Discussion

Inverted papilloma (IP) is a relatively rare growth in the nasal pathway and sinuses, accounting for 0.5% to 4.0% of all sinonasal tumors.1 It is known for its potential to progress into squamous cell carcinoma (SCC), high recurrence rate, and local tissue destruction. The mean age of diagnosis is fifty-five, and it is more common in men.2 Inverted papilloma arises from the Schneiderian membrane, which is the mucus membrane that covers the lining of the upper nose and sinuses. The unilateral lesion is most commonly present in the maxillary sinus (42%). In comparison, 20% are found in the ethmoid sinus, 15% in the nasal cavity, 10% in the frontal sinus, and 10% attached to the middle turbinate.3 Approximately 5% to 15% of benign IP cases transform into SCC.4

Literature discusses several hypotheses for the etiology of IP, including viral infection with human papillomavirus (HPV) and Epstein-Barr virus (EBV), chronic inflammation, occupational exposure to welding fumes and organic solvents, environmental pollution, and smoking.

Presenting symptoms often include bilateral nasal obstruction and rhinorrhea, despite a unilateral presentation that is frequently mistaken for polyps on endoscopy. In contrast to polyps, inverted papillomas (IP) are typically firm, non-translucent, and frequently polylobulated. A lack of response to standard nasal polyp therapies, including prednisone and corticosteroid irrigations, should increase clinical suspicion for IP and prompt further evaluation with a tissue biopsy.

A sinus CT scan is the imaging modality of choice. There are no definitive CT findings for IP, but useful indicators include unilateral opacification and bony erosion. A focal area of osteitis, indicating where the lesion started, is a good clue to the diagnosis of IP.

Continued on next page...

The definitive treatment for IP is surgical resection. Complete resection of the tumor, along with drilling the underlying bony attachment, reduces recurrence rates. Advances in endoscopic surgical techniques and navigation systems have significantly reduced recurrence rates. Recommended initial surveillance is every 3 months for the first two years, as recurrence rates are as high as 21% during this period.5 Recurrence of inverted papilloma (IP) has been documented as late as ten years post-treatment, prompting most clinicians to transition to a minimum of annual follow-up after the initial two-year surveillance period.

References

1. Tușaliu, M., Mogoantă, C. A., Iancu, C., Iovănescu, D., Nițescu, M., Bucur, C., Perpelea, A. C., Cîmpeanu, O. L., & Palade, O. D. (2024). Sinonasal inverted papilloma from diagnosis to treatment: A narrative review. *Romanian Journal of Morphology and Embryology*, 65(4), 599–607. https://doi.org/10.47162/RJME.65.4.06

2. Lisan, Q., Laccourreye, O., & Bonfils, P. (2016). Sinonasal inverted papilloma: From diagnosis to treatment. *European Annals of Otorhinolaryngology*, Head and Neck Diseases, 133, 337–341. https://doi.org/10.1016/j.anorl.2016.05.006

3. Barnes, Jason (Host), Dr. Stokin, Janelise. (2020, April 23). Inverted Papilloma, Headmirror's ENT in a Nutshell [Audio Podcast], Podcast Title, Production Company, URL.

4. Kakizaki, T., Hatakeyama, H., Nakamaru, Y., Takahashi, H., Homma, A., & Fukuda, S. (2017). Role of microRNA-296-3p in the malignant transformation of sinonasal inverted papilloma. *Oncology Letters*, 14(1), 987–992. https://doi.org/10.3892/ol.2017.6193

5. Kim, J. S., & Kwon, S. H. (2017). Recurrence of sinonasal inverted papilloma following surgical approach: A meta-analysis. *Laryngoscope*, 127(1), 52–58. https://doi.org/10.1002/lary.26222

Breathing Easy - Management of Nasal Airway Obstruction *A practical overview for otolaryngology APPs*

By Courtney Brackin, PA-C, SPAO Member

In the ENT world, we see many patients with the chief complaint of "I cannot breathe through my nose." Nasal obstruction can decrease a patient's quality of life by affecting quality of sleep, energy level and physical activity tolerance. The underlying causes are typically anatomical, functional or both:

1. Inferior turbinate hypertrophy
2. Septal deviation
3. Internal nasal valve collapse

Thorough assessment of a patient with nasal obstruction includes history, physical exam, and nasal endoscopy. Key questions include:

- Laterality: Is one side worse than the other?
- Quality of life: Does it affect your sleep, exercise, energy?
- Related conditions: allergic rhinitis, rhinosinusitis
- Treatments tried: Nasal irrigations, nasal sprays, nasal dilators?
- Nose history: Any prior nasal injuries or surgeries?

As part of the history, it is recommended to obtain a Nasal Obstruction Symptom Evaluation (NOSE) score:

Over the past one month, how much of a problem were the following conditions for you?

	Not a problem	Very mild problem	Moderate problem	Fairly bad problem	Severe problem
Nasal congestion or stuffiness	0	1	2	3	4
Nasal blockage or obstruction	0	1	2	3	4
Trouble breathing through my nose	0	1	2	3	4
Trouble sleeping	0	1	2	3	4
Unable to get enough air through my nose during exercise or exertion	0	1	2	3	4

NOSE score (multiply your total score x5)

Nasal obstruction severity classification: mild (5-25) | moderate (30-50) | severe (55-75) | extreme (80-100)

Completing a thorough nasal exam:

- **External:**
  - » Any gross abnormalities or deformities?
  - » Is the nose stable to palpation?
  - » **Internal:** utilizing nasal speculum and light source
  - » Is there a septal deviation? Septal perforation (size)?

Continued on next page...

- » Is there inferior turbinate hypertrophy?
- » Any nasal valve collapse/stenosis? Unilateral or bilateral?

- **Modified Cottle maneuver:** If they have nasal valve collapse, does it improve with modified Cottle maneuver?
  - » Ask the patient to breathe in for baseline.
  - » Using curette or another small instrument, gently place it inside the left/right nose and lateralize the nasal valve.
  - » Ask the patient to breathe in for comparison.
  - » If improvement of breathing = positive test.
  - » Complete it on the other side of the nose.

Nasal endoscopy and imaging:

- Utilized for further evaluation of anatomical structures and to rule out any masses, polyps, or other causes of obstruction.
- CT Sinus without contrast is typically recommended though may depend on provider preference.

Medical management

Medical management of nasal airway obstruction includes nasal saline rinses, intranasal sprays (steroidal sprays and/or antihistamine sprays), oral antihistamines, and nasal dilators (breath-right strips, nasal cones, etc.). It is typically recommended for patients to trial medical management for four to six weeks before re-evaluation. If no improvement, then the patient may be a candidate for surgical intervention.

Surgical management

Most nasal airway surgeries will include some degree of septal correction and reduction of inferior turbinates. When nasal valve collapse contributes to nasal obstruction, there are various techniques that are utilized to improve airflow including implants, spreader grafts, conchal cartilage harvest (butterfly graft), autologous or cadaveric rib graft, etc.

Butterfly graft includes the use of conchal cartilage (typically from the left ear), which is then placed between the upper lateral cartilages and nasal septum. The graft functions by preventing side nasal walls collapse during inspiration. When describing the butterfly graft to patients, it is often compared to an "internal breath-right strip." The butterfly graft provides reinforcement of nasal structure with minimal change in physical appearance. It is especially useful for patients with complex nasal anatomy and/or revision cases.

Butterfly Graft Animation:

https://www.youtube.com/watch?v=BM0NlszAxYE

Basics of assessment and management of nasal fracture:

Nasal fractures often occur from sports injuries, motor vehicle accidents, and falls. The timeline is important for nasal fracture evaluation and management. Initial evaluation is important in ruling out septal hematoma. If septal hematoma is present, it requires timely drainage to avoid septal cartilage necrosis, which can result in saddle nose deformity. Oftentimes, patients present to urgent care or the ED where septal hematoma is either noted or ruled out.

Next, initial ENT evaluation typically occurs between days three to five after injury. In clinic, we evaluate external nasal deformities or concerns. If the patient notes nasal obstruction, change in appearance of external nose, they may benefit from

Continued on next page...

surgical management. Closed nasal reduction can be performed within the first three to six hours from the initial injury, second window of time is seven to 14 days from the injury as after two weeks the bones may begin to set in place in an incorrect position.

External changes include visible asymmetry, deviation of nose, step-off deformity, ecchymosis, periorbital edema or ecchymosis. Most patients will have some degree of edema at this point which is important to note. Assess any concern for CSF leak. Next, we evaluate nasal airway obstruction. It is common for there to be some degree of nasal obstruction after nasal injury in the setting of edema and congestion. For closed fractures, it is safe to use saline nasal sprays or irrigations or other nasal sprays to symptomatically treat the obstruction. If nasal airway obstruction persists beyond three months after injury, it may be appropriate to consider functional rhinoplasty.

After nasal injury, we take baseline photos of patients in the clinic on initial evaluation. If they undergo reduction and/or return in three months for follow-up, we then obtain follow-up photos.

Conclusion

As otolaryngology APPs, it is important to thoroughly evaluate patients with chief complaints of nasal obstruction and nasal injury. Thorough evaluation includes history, physical exam, scores (NOSE) and photos if applicable, and nasal endoscopy.

References

Stewart MG, Witsell DL, Smith TL, Weaver EM, Yueh B, Hannley MT. Development and validation of the Nasal Obstruction Symptom Evaluation (NOSE) scale. Otolaryngol Head Neck Surg. 2004 Feb;130(2):157-63. doi: 10.1016/j.otohns.2003.09.016. PMID: 14990910.

Varman R, Clark M. Butterfly Graft Technique for Addressing the Internal Nasal Valve. Facial Plast Surg. 2022 Aug;38(4):347-352. doi: 10.1055/s-0042-1753521. Epub 2022 Oct 21. PMID: 36270288.

Elevating Practice: PAs in Head and Neck Surgical Oncology

By Carrlene Donald, MMS, PA-C; SPAO Director-at-Large

A robust head and neck surgical practice is a complex entity that requires significant support and effort to run efficiently. There is a paucity of literature surrounding the role of a Physician Assistant (PA) in a Head and Neck (H&N) Surgical Oncology practice. A 2021 article by Yalamanchi et al acknowledges that the Advanced Practice Provider workforce in Otolaryngology is experiencing rapid expansion in comparison to physician growth1.

Additionally, it has been clearly demonstrated that head and neck cancer outcomes are improved with a multidisciplinary approach2, 3, 4. The multidisciplinary coordination, treatment intensity and personalized nature of head and neck cancer care underscore the vital role that a well-trained H&N PA can provide as part of the treatment team. This article outlines the roles of a PA across the continuum of care in head and neck surgical oncology, including contributions in academic teaching hospitals alongside resident physicians.

Preoperative Role

The role of the PA can begin at the initial consultation, either seeing the patient independently or in collaboration with the H&N surgeon. A PA can perform in-office testing such as fine needle aspiration or other biopsies for diagnostic purposes and to expedite the work-up. Delegation of these technical tasks can allow for a more efficient clinical flow, increase patient volumes and/or decrease patient wait times.

Building a foundation of trust with a patient before they undergo life-altering treatment is critically important. As mentioned above, due to the multidisciplinary nature of head and neck cancer treatment, patients may not have a clear understanding of who can help them navigate a complicated medical system.

PAs can bridge that gap by allocating additional time for patient education and navigation of care. PAs are well-equipped to present patient cases at multidisciplinary tumor board meetings and relay those treatment recommendations to the patient in understandable language. This additional encounter provides patients with an opportunity to ask questions that may have come up after their initial consultation and additional follow-up visits.

The clinical expertise that H&N PAs acquire allows them to answer patient questions without requiring a script. With appropriate training, H&N PAs can become facile in the technical aspects of surgery and answer complex clinical questions, with the support of their collaborating physicians.

Due to the generalized nature of Physician Assistant training, PAs also understand the importance of medical optimization prior to surgical clearance and can make appropriate referrals for cardiac clearance, pulmonary function testing or anticoagulation management as indicated. PAs are also uniquely equipped to develop patient education material aimed at improving health literacy for our H&N cancer patient population.

Continued on next page...

Intraoperative Role

Intraoperative roles for PAs are abundant, even in a teaching hospital. A well-trained surgical PA can close donor site defects in reconstructive cases, assist with microvascular anastomosis or first-assist in transoral robotic surgery. The benefit of having consistent PA support in the operating room can facilitate surgeon preferences for anesthesia colleagues and operating room staff, as well as act as a sounding board for surgeon colleagues as they consider reconstructive options.

In a teaching hospital, there does not need to be competition for operating room time between a PA and resident physicians. Resident surgeons are training to operate, while PAs are always working to assist the surgeon(s). With clear delineation of objectives and roles, there is room for a cohesive team-based approach to intraoperative care.

Postoperative Role

Inpatient management of complex head and neck cancer patients can be a heavy lift. Some institutions choose to have an inpatient team consisting of APPs to conduct daily rounds, address nursing questions and concerns, medication management, perform routine postoperative care, including wound care, drain management, tube feeding, tracheostomy care and flap monitoring.

In teaching hospitals, this may be delegated to resident physicians. Depending on the practice location and proximity to the hospital, the inpatient stay offers H&N PAs an opportunity to solidify their relationship with the patient, even if it is for a "social" visit to check in. Small acts such as this can go a long way in building a foundation of trust and support between H&N PAs and their patients.

After discharge from the hospital, H&N cancer patients often require frequent outpatient follow-up for the first month or more postoperatively. This depends on the type of surgery performed, but often patients require suture removal, wound care, tracheostomy management and management of enteral feeding. A H&N PA provides access for patients to get high-level care without overtaxing the surgeon1.

Early recognition and treatment can minimize the progression of postoperative complications. Many factors play a role in the speed of recovery, including pre-existing comorbidities and functional status, type of surgery performed, need for adjuvant treatment as well as social determinants of health such as social capital. Studies have shown that patients with higher levels of social capital, or social support, have improved health outcomes5. H&N PAs can help to identify patient-specific needs and facilitate further support from the ancillary specialty teams, including case management, social work, dieticians, speech language pathologists, and physical and occupational therapists.

Surveillance and Survivorship

We have discussed the importance of continuity of care for H&N cancer patients due to the complexity of treatment as well as its impact on daily function. Establishing a relationship with patients allows them the safe space to relay their concerns and any symptoms they may be experiencing.

H&N PAs can help provide continuity in conjunction with the rest of the multidisciplinary team. For most head and neck cancer patients, the highest risk of recurrence is in the first 24 months. Close interval follow-up for clinical exams and

Continued on next page...

scheduled imaging is important for prompt detection of recurrences. H&N PAs can be integral in providing timely care and increasing access for patients alongside their surgeon colleagues.

According to the National Cancer Institute, "An individual is considered a cancer survivor from the time of diagnosis through the balance of life. There are many types of survivors, including those living with cancer and those free of cancer."6 There are significant treatment-related side effects that require evaluation and treatment, including, but not limited to, lymphedema, dysphagia, xerostomia, thyroid dysfunction, dental decay, osteoradionecrosis, esophageal stenosis, cervical dystonia, trismus and cranial neuropathies.

A component of a survivorship appointment incorporates a thorough head and neck exam, including laryngoscopy. This can be to assess current symptoms or to monitor for any evidence of a second primary malignancy. The overarching goal of a survivorship clinic is to support quality of life and functional needs of the patient in addition to surveillance for recurrent disease. H&N PAs are an excellent resource to establish survivorship clinics and provide referrals for supportive and integrative therapies such as dietician consultations, lymphedema management, Botox injections for cervical dystonia, cognitive behavioral therapy for chronic pain and/or psychosocial needs, identification of support groups and palliative care referrals.

In conclusion, PAs can play a central role for head and neck cancer patients across the care continuum. They increase access and clinical availability, contribute to efficiency, patient satisfaction and improved patient outcomes. Regularly reviewing roles and practices is key to maximizing efficiency and ensuring all team members work to their full potential in meeting patient needs. High-quality care for head and neck cancer patients relies on a collaborative, team-based approach, with the H&N PA working in partnership with the surgeon and the broader multidisciplinary team.

References

1. Yalamanchi P, Blythe M, Gidley KS, Blythe WR, Waguespack RW, Brenner M. The Evolving Role of Advanced Practice Providers in Otolaryngology: Improving Patient Access and Patient Satisfaction. Otolaryngology-Head and Neck Surgery. 2021;166(1):6-9. doi: https://doi.org/10.1177/01945998211020314

2. Lo Nigro C, Denaro N, Merlotti A, Merlano M. Head and neck cancer: improving outcomes with a multidisciplinary approach. Cancer Manag Res. 2017 Aug 18;9:363-371. doi: 10.2147/CMAR.S115761. PMID: 28860859; PMCID: PMC5571817.

3. Lo Giudice G, Caterino M, Rauso R, Colella G. The Multidisciplinary Approach in Head and Neck Oncology During COVID-19 Pandemic. Journal of Craniofacial Surgery. 2021; 32 (8): e835-e836. doi: 10.1097/SCS.0000000000008172.

4. Licitra L, Keilholz U, Tahara M, et al. Evaluation of the Benefit and Use of Multidisciplinary Teams in the Treatment of Head and Neck Cancer. Oral Oncology. 2016;59(59):73-79. doi: https://doi.org/10.1016/j.oraloncology.2016.06.002

5. Barr DA. Health Disparities in the United States: Social Class, Race, Ethnicity, and the Social Determinants of Health. 3rd ed. Baltimore, MD: Johns Hopkins University Press; 2019.

6. National Cancer Institute, Division of Cancer Control and Population Sciences, Office of Cancer Survivorship. Definitions. Accessed October 1, 2025. https://cancercontrol.cancer.gov/ocs/definitions